

EXHIBIT __ (GH-2)



Status of the V. C. Summer Units 2 & 3 Nuclear Power Plants

Presentation to the South Carolina Energy Users Committee
Nanette S. Edwards, Deputy Executive Director, ORS
May 13, 2016



ORS TEAM



Anthony James, Director Energy Policy, Licensed Prof. Engineer, Master's in Earth and Environmental Resources

Allyn Powell, Manager for Nuclear Programs, B.S. in Physics, Master of Science in Physics, area of study: nuclear and particle physics. Served as lead staff for the S.C. Governor's Nuclear Advisory Council.

Gene Soult, Senior Research Analyst, Power Plant Management and Operations Experience (24 years nuclear, 14 years fossil), held Senior Reactor Operator (SRO) credentials at two different nuclear plants.

Jay Jashinsky, Director Audit, Certified Public Accountant

Gary C. Jones, President of Jones Partners, Ltd.

- ▶ 45+ years in the nuclear power industry
- ▶ 32 years with Sargent & Lundy (S&L) in Chicago, Illinois
- ▶ 16 years as an Owner/Senior Vice President of S&L
- ▶ 2 ½ years with the International Atomic Energy Agency (IAEA) in Vienna, Austria
- ▶ Led the design and engineering on 3 major nuclear power plants
 - ▶ LaSalle County (Commonwealth Edison)
 - ▶ Marble Hill (Public Service Indiana)
 - ▶ Braidwood (Commonwealth Edison)
- ▶ Provided engineering, design and consulting services to over 50 nuclear power plants in the United States
- ▶ Professional project experience in Armenia, Canada, China, El Salvador, Finland, Hungary, Mexico, South Korea and Ukraine as well as throughout the United States
- ▶ Retained by South Carolina Office of Regulatory Staff (ORS) since August 2011
- ▶ Registered Professional Engineer in Missouri and South Carolina

A Very Good Idea in 2008



Why?

- ▶ Updated NRC regulatory environment under 10 CFR 52, which allows for a combined license to both construct and operate a plant
- ▶ Modular Construction
- ▶ Certified Design
- ▶ Success in Asia
- ▶ Source of non-GHG emitting and diverse power
- ▶ Engineering, Procurement and Construction (EPC) Contract
- ▶ Base Load Review Act (BLRA) in South Carolina

Experience Since 2008



NRC regulatory environment not as good as hoped

- ▶ Combined Construction and Operating License (COL) was delayed
 - ▶ 9 months until March 30, 2012
- ▶ "Build what you license vs. license what you build"
- ▶ Very strict literal compliance via NRC oversight
- ▶ License Amendment Requests (LARs)
- ▶ First plants through the Inspection, Tests, Analyses and Acceptance Criteria (ITAAC) process
- ▶ Not as much credit for previous experience in China as hoped
- ▶ Impact of changes from Fukushima accident

Experience Since 2008



Modular Construction

- ▶ Fabricators unable to reliably meet schedule and quality requirements
- ▶ Continuing design changes
- ▶ Inadequate constructability reviews
- ▶ Reassignment and de-scoping of fabricators

Certified Design

- ▶ Not as complete as anticipated
- ▶ Lessons learned at Chinese and sister plants
- ▶ Compliance issues with codes, standards and commitments
- ▶ SCE&G requested changes

Experience Since 2008



Asian Schedules Could Not Be Duplicated

- ▶ More rigorous regulatory environment
- ▶ Construction productivity rates lower than planned

Still a Source of Non-GHG Emitting Power

- ▶ More focus on this issue due to EPA 111d
- ▶ Diversity in power supply remains important

Experience Since 2008



EPC Contract

- ▶ Multiple Changes in Ownership
 - ▶ Westinghouse/Shaw Stone & Webster
 - ▶ Westinghouse/CB&I Stone & Webster
 - ▶ Westinghouse (with Fluor as a sub-contracted construction manager)
- ▶ Multiple Amendments
- ▶ "Change in Law" provision interpretation led to disagreements
- ▶ Designer vs. Constructor

Experience Since 2008



BLRA Remains an Essential Element to Success...

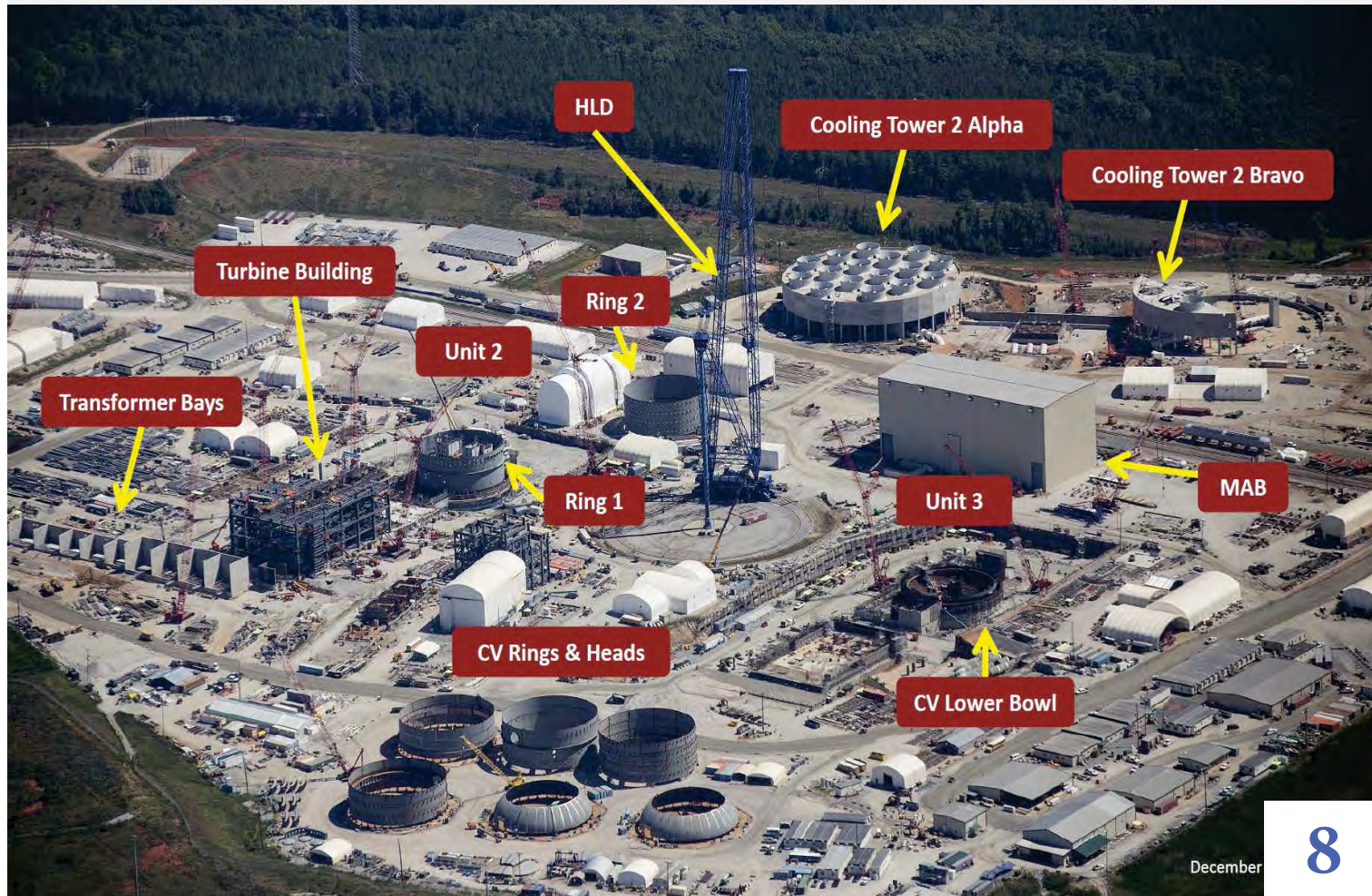
- ▶ Stable environment ensures project financing
- ▶ Inflation and interest rates have been favorable during construction
- ▶ Construction has created jobs
 - ▶ 3,750 workers on site in March, 800 permanent jobs anticipated

However, Cost and Schedule Changes are Mounting.

- ▶ 5 Filings under the BLRA to delay construction schedules and/or increase project budget
 - SCE&G's share of budget additions in 2007 dollars: \$1.15 billion
- ▶ 8 Revised Rates filings
 - Cumulative increases under the BLRA estimated to total \$1.055 billion

Site Overview

(Picture from September 2015)



December

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Unit 2 CA03



First Quarter 2016 | Earnings Conference Call

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Unit 3 Nuclear Island & CV Ring 1



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Unit 3 CA20



SCE&G's Settlement with the Consortium

	Order #2015-661 (Prior EPC)	Amended EPC	Fixed Price Option
Guaranteed Substantial Completion Dates	Unit 2 - June 2019 Unit 3 - June 2020	Unit 2 - August 2019 Unit 3 - August 2020	
Capital Cost	\$5.247 billion	\$5.492 billion	\$6.757 billion
Future Escalation to Westinghouse as 6/30/2015*:	\$794 million	\$813 million	\$19 million*
Total Expected Project Cost	\$6.827 billion	\$7.113 billion	\$7.601 billion
Liquidated Damages	\$155 million @ 100% \$86 million - SCE&G	\$926 million @ 100% \$509 million - SCE&G	\$676 million @ 100% \$372 million - SCE&G
Bonuses	Capacity Performance Related	Completion - Capacity Performance bonus removed \$550 million @ 100% \$303 million - SCE&G	\$300 million @ 100% \$165 million - SCE&G
Change in Law Language	Generally defined	Explicitly defined - Formal written adoption of a new statute, regulation, requirement, or code or new NRC regulatory requirement that did not exist as of this amendment	
Design Control Document	Revision 16	Revision 19	



*The Fixed Price Option, regardless of date of acceptance, would fix Project Costs and shift the risk of escalation (excluding escalation on owner's and transmission costs) to Westinghouse as of June 30, 2015. Total Gross Escalation recorded as of 6/30/2015 is \$386 million. Under the Fixed Price Option, Total Gross Escalation remaining on the project is estimated to be approximately \$145 million.

ORS Activities Related to Settlement



▶ Ongoing ORS Monitoring

- ▶ Monthly site tours and meetings
- ▶ Focus on budget/schedule impacts


▶ Information Requests Issued to Company - March 4, 2016

- ▶ Responses Received – March 24, 2016

▶ Follow Up Information Requests Issued – April 12, 2016

- ▶ Responses Received – April 22, 2016
- ▶ Currently evaluating responses

ORS Website Additions



Consumers

Electric

Gas

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New Nuclear

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V.C. Summer Units 2 and 3

[ORS First Continuing Request for Records and Information](#)

[ORS 1st Information Request October 2015 EPC Amendment](#)

[SCE&G Responses to ORS 1st Information Request](#)

[ORS Follow-up to SCE&G Responses](#)

[Construction Update 4-11-16](#)

[Revised Rates Dockets](#)

[2-23-16 BLRA Estimated Cumulative Approved Increases](#)

[Base Load Review Act Dockets](#)

[1-15-16 ORS Releases Results of Independent Analysis on V.C. Summer Units 2 & 3 under Base Load Review Act](#)

[ORS Focuses on Contract Amendment](#)

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Project Challenges



- ▶ Transition Between EPC Contract Holders and Construction Management
- ▶ Modules, Modules, Modules!
- ▶ Shield Building Air Inlet Tension Ring and Roof Design
- ▶ Productivity
- ▶ Mechanical, Electrical and Instrumentation & Controls Installation
- ▶ Regulatory Compliance
 - ▶ License Amendment Requests (LARs)
 - ▶ ITAAC (873/unit required; 22 on U2 and 19 on U3 verified by NRC)
- ▶ Start-Up
- ▶ Operations and Support Staff Readiness

Conclusions



- ▶ Recent independent study indicates BLRA methodology reduces costs
- ▶ Still a diverse and non-GHG source of power
- ▶ Project faces significant, but not insurmountable, challenges
- ▶ Unit 3 will need substantial improvement in all areas to meet the date for federal tax credits
- ▶ Progress has been made in the general areas of the site and the turbine island
- ▶ Consolidation under Westinghouse is viewed positively by SCE&G
- ▶ Addition of Fluor brings experience and challenges